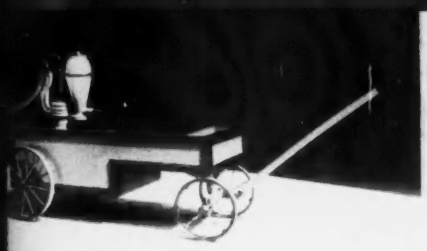
NOVEMBER 1948

FIREMEN

FIFTY-THIRD YEAR • NATIONAL FIRE PROTECTION ASSOCIATION



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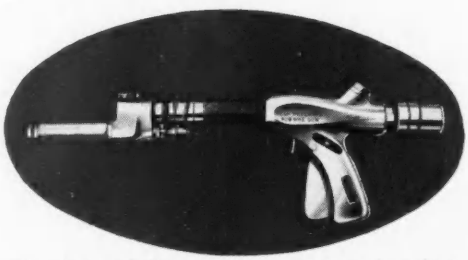

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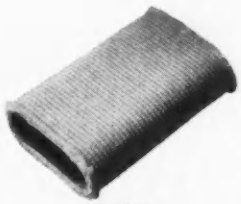

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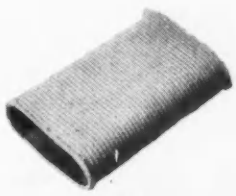

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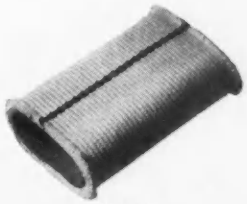

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Single or Double Jacket

Made in strict accordance with the National Board of Fire Underwriters' specifications. Labeled or unlabeled.

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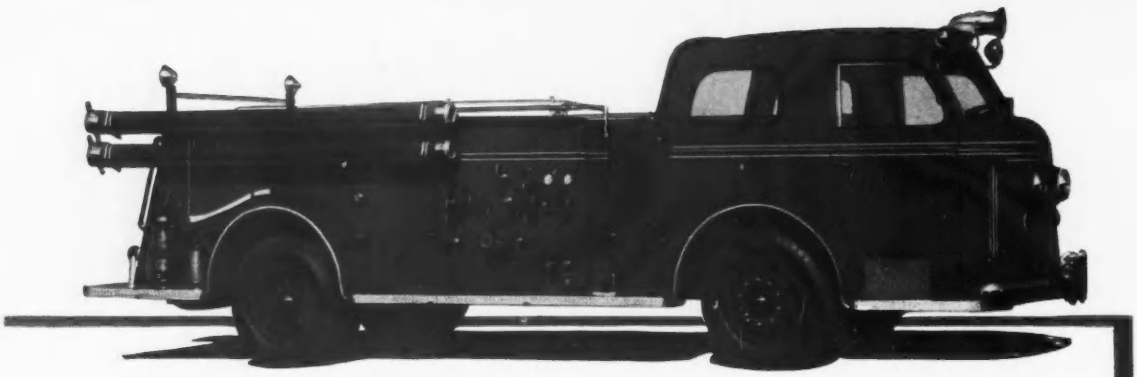
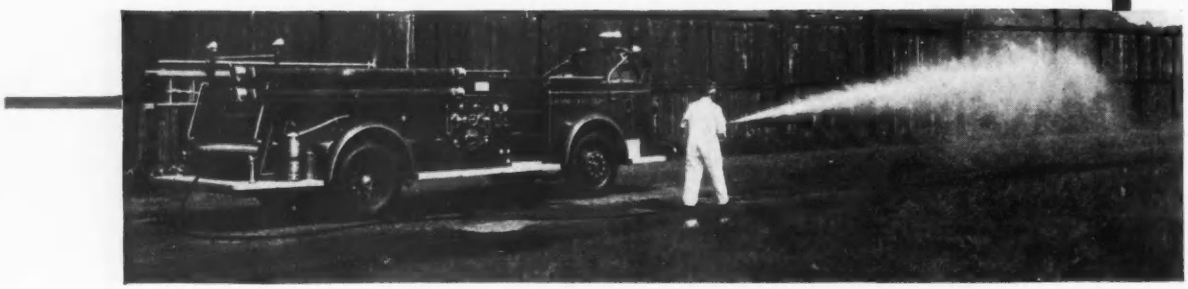


UNDERWRITERS SPECIFICATIONS *Plus* HIGH PRESSURE...



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ALFCO

Firemen

Volume 15 Number 11

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Accounts of fires appearing in FIREMEN *are copies of or extracts from reports forwarded to the Association. This Association, as a body, is not responsible for the statements or opinions of any of its members.*

Contents for November 1948

300th Anniversary of Volunteer Fire Service in the United States 6

1948 Firemen's Training Program 8

Volunteer Firemen Training Schools in Saskatchewan, by R. E. Tiffin 10

New Air Crash Truck for Hartford, Connecticut 11

Iowa's County Fire Schools 12

Carbon Dioxide System Protects Large Elevator 13

Some of the Recent Fires 16

A Tribute to Volunteer Firemen, by Representative J. Caleb Boggs 17

Latest Tank Pumper for Los Angeles County 24

2000 GPM Mack Pumpers in Minneapolis 24

Manufacturers' Announcements 26

THE cover of FIREMEN this month is devoted to the 300th anniversary celebration of the Volunteer Fire Service in the United States. This observance was highlighted by the issuance of a commemorative United States postage stamp at Dover, Delaware, on October 4, as part of the observance of Fire Prevention Week. Legislation in the form of a joint House-Senate resolution requesting the issuance of the stamp by the Post Office Department was sponsored by Delaware's Representative J. Caleb Boggs, whose father's home was saved from destruction by fire last Christmas Eve by volunteer firemen. Congressman Boggs' remarks appear on page 17 of this issue.

The large illustration on the cover shows the station and equipment of the Robbins Hose Company of Dover, Delaware (member of the NFPA Volunteer Fire Company Section since 1934) and host department at the commemorative exercises. At the right is shown the newly completed apparatus room 65 by 70 ft. in area, housing six of the department's seven trucks. The new apparatus room was dedicated on Sunday, October 3, with state and municipal officials present. These dedication ceremonies also featured the housing of two new fire trucks recently purchased by the company which consists of 70 volunteer members. The only paid members are two building custodians who work alternating 24-hour shifts.

The new apparatus includes a beautiful new Mack 750 gpm pumper with 800 gallon water tank and a 750 gpm Seagrave pumper with 300 gallon tank. Other equipment of this outstanding volunteer fire company includes a 65 ft. aerial, three pumpers, and a salvage and lighting truck.

Also shown on the cover is the official badge of the Robbins Hose Company as awarded to Representative Boggs who was made an honorary member of the Company by President C. R. Dempsey in appreciation of his service to the volunteer firemen of the nation.

THE upper illustrations on the cover of FIREMEN include at left, Dover's first pumper purchased about 1869 and rescued from a woodpile in an adjoining town by Thomas E. Baker, for 13 years chief of the Robbins Hose Company and Chairman of the Company's anniversary celebration committee. This bucket filled "tub" was equipped with a small leather hose but was not a formidable fire fighting machine even by mid-nineteenth century standards. This was evidenced when it failed to throw a stream into a second floor window at a large hotel fire and a steam fire engine was brought by railroad flatcar from Wilmington to control the fire.

The top center illustration on the cover, shows the U. S. postage stamp commemorating the 300th anniversary of the Volunteer Fire Service. An official Post Office Department description of the stamp is as follows:

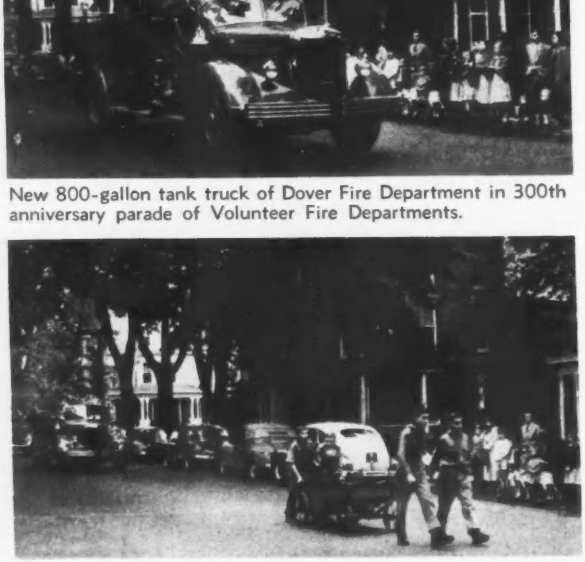
The stamp is 0.94 in x 1.44 in. in dimensions, arranged horizontally. The central design is a portrait of Peter Stuyvesant with the name and wording "Organizer of the first Volunteer Firemen in America" in three lines of dark Gothic just below. To the left and right of the portrait is an early and modern fire engine, respectively. Above the earlier engine is the denomination "3c" and above the modern engine are the words "United States Postage" each in dark Gothic. A single line bears the words "300th Anniversary Volunteer Firemen" in the same style type. The dates 1648 and 1948 are grouped just below this line in white Gothic. At the bottom of the stamp in the same style type and on a dark panel appear the words "Unselfish Public Service. Courage. Duty." The stamp will be red in color and an initial printing of fifty million has been ordered.

THE upper right cover illustration shows the new white and black Mack pumper of the Riverdale, Maryland, Volunteer Fire Department that was chosen by the Post Office Department to represent modern volunteer fire department equipment on the commemorative stamp. Fire officials who have had an opportunity to study this piece of equipment state that it literally "has everything" for modern volunteer fire service. Already other volunteer fire companies have ordered exact counterparts. This truck carries a 750 gpm pump rated at 150 pounds, a 300 gallon water tank, 1,200 ft. of 2½-in. hose, 600 ft. 1½-in. hose, booster reel, high pressure fog pump and two reels of high pressure hose with fog guns, 3,000 Watt lighting plant with floodlights and searchlights, turret nozzle, numerous special appliances including various fog nozzles. In addition to the usual 2½-in. outlets, gated 1½-in. outlets are provided at the rear. There are gated 2½-in. intakes to supply the pump in relay operation when the apparatus is stationed in front of a fire.

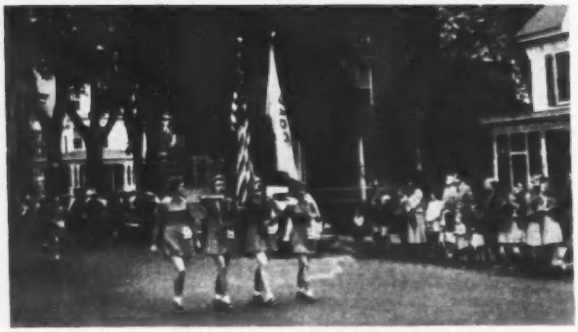
300th Anniversary of Volunteer Fir

FIRST DAY SALE OF COMMEMORATIVE POSTAGE STAMI

New 800-gallon tank truck of Dover Fire Department in 300th anniversary parade of Volunteer Fire Departments.



First Dover hand pump pulled by Boy Scouts.



Girl color guard leads one of many excellent bands in anniversary parade.

Some 40 volunteer fire companies from Delaware entered apparatus in parade.

THE 300th anniversary of organized volunteer fire service in the United States, dating from the appointment of the first fire wardens by Peter Stuyvesant of New Amsterdam in 1648, was fittingly observed at Dover, the capital city of Delaware, on October 3 and 4. The highlight of the celebration was the "first day sale" of U. S. postage commemorative stamps honoring the occasion.

On Sunday afternoon, October 3, the first day of Fire Prevention Week, more than forty Delaware volunteer fire departments participated in a commemorative parade. Out-of-state fire service representatives present acclaimed this as the finest firemen's parade they had ever witnessed from the point of view of attractive apparatus and equipment, excellent bands, and the orderliness and dignity with which the parade was conducted.

In the place of honor at the head of the procession was the Riverdale, Maryland, Volunteer Fire Department whose apparatus appears on the commemorative postage stamp.

The parade terminated after passing the reviewing stand at Dover's Robbins Hose Company fire station. Exercises dedicating a new addition to the station and new apparatus were followed by a collation served by the company.

ON Monday morning the first day sale of the new volunteer firemen's commemorative stamps took place in front of the Dover City Hall, starting with patriotic exercises and addresses of welcome from state and municipal officials.

The first sale of commemorative stamps was made by Superintendent Robert E. Fellers, Division of Stamps, U. S. Post Office Department, to officials representing city, state and firemanic organizations, and to Delaware's U. S. Representative J. Caleb Boggs, sponsor of the legislation proposing the issuance of the stamp. Representative Boggs' address appears on page 17 of this issue.

Past-President E. B. Doughtery of the Delaware State Volunteer Firemen's Association spoke for the volunteer fire service, saying:

"We volunteer firemen of the United States are extremely grateful for the honor and recognition given us by our government by means of a commemorative postage stamp. That stamp will travel and be seen by millions of people throughout the world.

"Although the words will not be visible on the stamp, we volunteer firemen want it, nevertheless, to carry this message. We are free citizens in a great and free country. As such, we have pledged ourselves to render service to our fellow citizens, our communities, and our nation. We will do so surely and unselfishly. We will ever strive, in the true spirit of free Americans, to perform faithfully and fully the duties which we have undertaken for ourselves.

"Such is the spirit of Americans, who, by cooperative action, continue to achieve the forward-looking goals we set for ourselves. Such is the spirit which, through the centuries, has made America strong — and will continue to sustain her."

In the concluding address of the morning, President Ned H. Dearborn of the National Safety Council, Chicago, urged the volunteer fire companies to broaden their activities to embrace all phases of community safety.

The first day sale of stamps was a tremendous undertaking for a comparatively small city post office but was handled with quiet efficiency by Postmaster Harry K. Heite, who had 55 employees crammed into every corner of the post office building to meet the requests for stamps and "first day covers" from almost every country in the world. Some 800,000 com-

Fire Service in the United States

STAMP AT DOVER, DELAWARE, OCTOBER 4, 1948

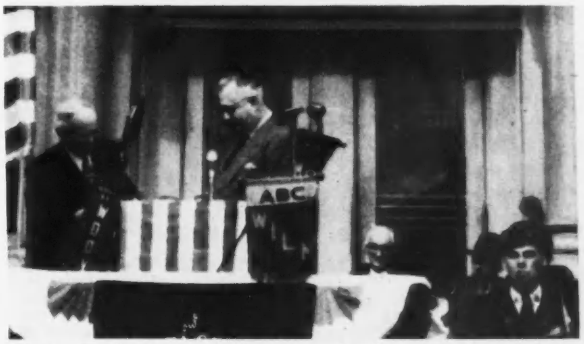
memorative stamps were sold from this one office in the first three days of the sale.

FOLLOWING the official stamp sale Congressman Boggs was honored by a testimonial luncheon at the Hotel Richardson and was presented with a beautiful set of matched luggage by E. B. Dougherty and W. W. Pettyjohn in behalf of the Delaware State Firemen's Association. The keynote address of the day was an after dinner oration which called the volunteer firemen to continue their high ideals of service, and was made by T. Alfred Fleming, Director of Conservation of the National Board of Fire Underwriters and Chairman of the NFPA Committee on Fire Prevention and Clean Up.

Out-of-state guests at the luncheon included Chief James W. Just, Director, Fire Service Extension, University of Maryland; Chief Howard Travers of the Baltimore Fire Department; Chief Clement Murphy, Fire Marshal Roberts and Deputy Chief Davis of the District of Columbia Fire Department; Chief John Redmond, President, International Association of Fire Fighters, representing the paid fire service of the Nation, and William Wunderlich, Financial Secretary of the Delaware County (Pennsylvania) Firemen's Association.

Following the testimonial dinner a group of volunteer fire companies presented a program of fire fighting operations in the plaza near the state and municipal buildings. A pumper relay supplied by an engine drafting from a bridge indicated how volunteer fire departments can quickly supply water through several thousand feet of hose at rural fires. The Robbins Hose company put its aerial ladder pipe in service but soon had to shut down as a brisk wind carried spray toward the post office where the commemorative stamp sale was in full swing.

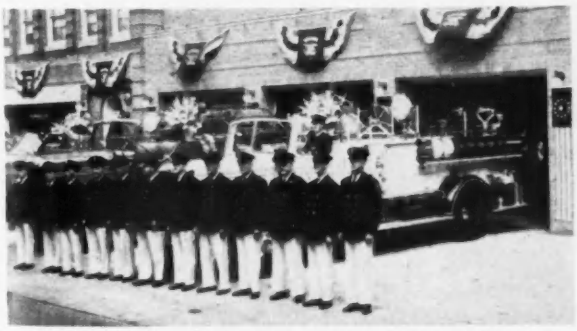
An evening Fire Prevention Meeting at the quarters of the Robbins Hose Company attended by representatives of the various Delaware state and county firemen's organizations was addressed by Thomas T. O'Brien in command of the New York City Alarm Telegraph Office. Chief O'Brien described the fire prevention routine of the world's largest city fire department and stressed the importance of having firemen acquainted with all buildings in which they may be called upon to fight fires. Editor Warren Young Kimball of FIREMEN spoke on the importance of fire prevention and fire protection to rural communities and pointed out that much of the deserved recognition accorded to the volunteer firemen in recent years has resulted from proficiency developed in their state and local firemen's training programs.



First sale of commemorative stamp by Superintendent Robert Fellers, U. S. Division of Stamps.

Delaware Congressman J. Caleb Boggs addresses crowd at commemorative stamp sale.

President Ned H. Dearborn of the National Safety Council urges volunteer firemen to participate in community safety programs.



Riverdale, Md. Fire Department stands in review at Dover fire station.

E. B. Dougherty, Delaware State Volunteer Firemen's Association, pledged continued unselfish service by volunteer firemen.

1948 Firemen's Training Program

AN estimated 35,000 firemen participated in courses affiliated with firemen's training programs in some 35 states reporting their training activities on a state-wide basis. In addition many thousands of firemen, paid and volunteer participated in training work done in individual fire departments by instructors trained through the state programs. In a number of states the state training program is to a large measure directed to the need for advanced training and to the problems of special groups. Such special training includes fire prevention personnel, the training and improvement of fire department instructors, and chief officers' conferences.

Brief notes on what certain states are doing are given below and include reported figures on the state training programs for the fiscal year ending June 30, 1948.

Annual "fire colleges" or short courses were reported by 25 states with 5,852 firemen in attendance. These figures include the schools held through the 1948 summer season although the balance of this survey includes only the training work completed in the fiscal year period mentioned.

Admittedly the backbone of effective training programs are the courses of systematic instruction offered in most of the states having a year-round training program as distinguished from the few states where an annual school is the only state-wide training activity. However, it has become almost impossible to present a detailed breakdown of systematic instruction as distinguished from the "promotional" type of training where only a few of the techniques of firemanship are given during a brief training session.

Today, in most states the training programs whether given by an itinerant instructor, by a local instructor trained at a state sponsored instructor training course, or given at a central fire training school, consist of measured systematic instruction. This instruction frequently consists of courses that require three or four years of work to complete and that total from perhaps 60 to 200 hours as in the case of Maryland. Men attending state fire colleges frequently have several options as to the type of or units of training they may take. In other states, as in North Carolina, the course is laid out so that four years work at the state fire college is necessary to secure a diploma, although a certificate is given each year. In a number of states the amount of instruction per year amounts to from 20 to 30 hours per man.

In general, the state fire training programs are not directly concerned with the work of training the 100,000 members of the large paid city fire departments, although in many areas close liasion is maintained by city and state training personnel. In a number of states the instructors of the city fire departments are employed on a part-time basis as regional or itinerant instructors. In other instances the state programs serve as a medium for exchange of ideas and methods among city training officials, and specialized classes are conducted to meet the needs of this group.

The idea of fire training through actual fire fighting developed by the military services during the war has gained increased acceptance among state and fire department training officials. The outstanding fire school of this kind is that conducted by the New Haven, Connecticut, Fire Department under Chief Paul Heinz. In that city the training ground includes buildings in which fires may be built. These were erected by the firemen themselves. Pennsylvania has made its annual Fire School a school of actual fighting of fires. Other states have appreciated the importance of this technique and have included some fire fighting in their fire school curriculum.

No report on firemen's training would be complete without mention of the outstanding work of the NFPA Committee on Firemen's Training under Chairman W. A. Ross, Consultant, U. S. Office of Education, whose report to the NFPA Annual Meeting appeared in FIREMEN for August 1948, page 10.

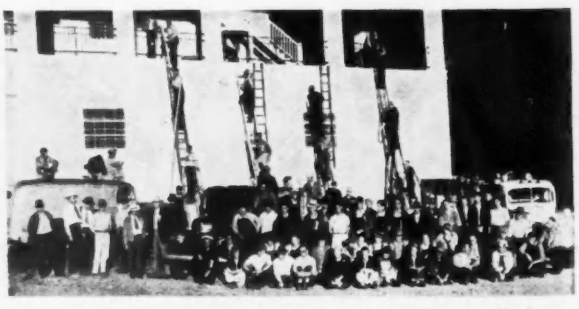
However, in the last analysis, the success of any firemen's training program depends upon the interest and enthusiasm of the fire companies and individual fire fighters. Older firemen should see that each new man is given an opportunity to complete the standard basic fire training course offered in their state. All company officers should take advantage of the excellent advanced courses on various phases of firemanship and fire hazards that will keep them fully qualified to exercise leadership in this important emergency and life saving service.

ANNUAL FIRE SCHOOLS

State	Years Held	Fire Depts. Represented	1948 Attendance
Alabama	12	43	146
Connecticut	8	—	150
Florida	18	—	205
Illinois	24	154	651
Indiana	15	71	298
Iowa	24	122	487
Kansas	18	—	253
Kentucky	11	—	277
Louisiana	19	36	66
Maryland	15	—	222
Michigan	20	64	351
Minnesota	20	—	500
Missouri	12	—	100
Montana	2	—	165
Nebraska	11	73	250
New Mexico	17	25	125
North Carolina	20*	71	284
Ohio	4	—	81
Oklahoma	15	42	165
Pennsylvania	10	—	—
Tennessee	5	31	70
Texas	19	283	469
Utah	4	41	292
Virginia	2	—	57
West Virginia	18	70	188
Total			5,852

* Training program established 1914.

Fourth Annual Utah State Firemen's Training School at Salt Lake City airport drill grounds, including practice in fighting airplane crash fires.



Montana fire departments participating in a training school held at Columbia Gardens. View shows volunteer firemen drilling with hose and ladders.

Alabama. Ben. E. Harris, Supervisor Public Service Training reports that a total of 1376 firemen received training during the fiscal year ending June 30. The state instructor conducted 36 classes with an attendance of 237 men. In addition, 23 communities with 959 men had year round or part time programs under local instructors cooperating with the state program. Forty-three departments with 146 men were reached at the state fire school and 20 industrial firemen received instruction. A special class at the University of Alabama firemen's training station was held during January with 14 men attending.

Arkansas. State Fire Instructor John E. Hurley of the Division of Vocational Education reports that 2656 firemen attended fire training courses in the fiscal year ending June 30. These courses covered all phases of fire training, including instructor training and organization of new fire departments. In the coming year, new courses are planned in pump operation and officers' training. Each unit of instruction consists of 20 hours of work and the average enrollment was 80 men.

California. A fire training program was conducted under the direction of Thomas S. Ward, Supervisor of Fire Training, Commission for Vocational Education. Figures for the past fiscal year are not yet available.

Colorado. Chief Charles O. Bonnelle, State Firemanship Instructor, State Board for Vocational Education, reports that the program for the past fiscal year was conducted by one full-time and one half-time instructor with the assistance of 20 part-time professional firemen instructors. Thirty-six contracted centers and 15 centers in which no contract was made received instruction in various phases of firemanship. Thirty-seven fire departments received certificates signifying completion of a minimum 24-hour course with additional training designated on certificates by gold stars each representing 24 hours additional training. The firemanship program includes 30 subjects with minimum time and proficiency requirements for each item. A year-round program is maintained in most training centers with all-day schools each month in many of the 52 centers. 1488 firemen were enrolled in courses which totalled 1734 hours of instruction.

Connecticut. Chief John S. Pachl, Firemen's Training Instructor for the State Department of Education, reports that 31 town fire departments were reached by 20 regional fire schools having a total of 520 firemen in attendance. In addition, 150 firemen were certified for work completed at the State Fire College held at New London. The Connecticut fire training program consists of three courses — the basic or No. 1 course was given in 10 centers, the No. 2 course was given at 6 centers and the No. 3 course at 4 centers.

Delaware. Mr. A. B. Anderson, State Supervisor for Trades and Industries, reports that 10 classes were held with 215 firemen completing the 24-hour per year training program offered to volunteer fire companies. The entire course consists of four units given over a period of four years.

Florida. Captain John Fleming of Miami Beach Fire Department reports that the State Fire College, August 16–27, had an attendance of 205 firemen. Chief James P. Britton serves as itinerant fire instructor throughout the state with headquarters at Ocala.

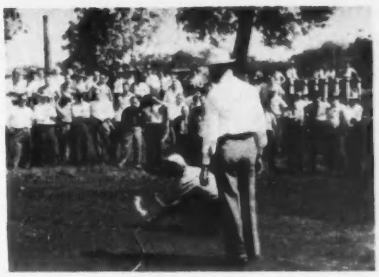
Georgia. Mr. J. F. Cannon, Engineering Extension Division of the Georgia Institute of Technology, reports that during the fiscal year ending June 30, 1948, 482 firemen and building custodians attended a fire prevention school operated at Atlanta and 139 firemen attended a fire prevention and fire protection clinic held at Macon. In addition, firemanship training was conducted in 20 cities with an enrollment of 542 men under the leadership of qualified fire department instructors. Training instructors in paid fire departments serve as coordinator-instructors for nearby volunteer departments on their off time with an enrollment totalling 500 volunteers. A leadership and instructor training course at three centers had an enrollment of 62 fire department officers. During April to June, 4 zone firemen training schools had an attendance of 586 men. Fire Marshal Harry Phillips of Atlanta reports that zone schools were conducted at Griffin, Columbus, Savannah, Rome, Augusta, Atlanta and Macon with a total attendance of 1032 firemen from 71 cities. These schools included 16 hours of instruction in various drill evolutions with evening lectures on fire prevention and fire protection subjects. Each fireman is given a certificate of firemanship if he completes one of the approved training programs, requiring approximately two years of work. The Oklahoma fire training manuals are used in the Georgia fire training program. A number of additional schools were conducted during the summer of 1948.

Illinois. State Fire Marshal John H. Craig reports that his fire department instructors conducted 26 regional fire schools with an attendance of 3361. In addition they worked with 15 individual fire departments with a total attendance of 468. Instruction was also given to fire brigades at all state hospitals and prisons. Chief Roy Alsip of Champaign reports that the Twenty-Fourth Illinois Fire College at the University of Illinois, June 15–18, had a total registration of 651 men, including 510 fire department members representing some 48 paid and 104 volunteer fire departments, plus numerous industrial fire fighters, fire marshals, and others.

Indiana. The Indiana fire training courses included nine regional schools with an attendance of 787, 19 departmental schools with an attendance of 695 and three officers conferences with an attendance of 183. In all, systematic training was given to 2738 firemen. Two state fire schools were held at Purdue University during the fiscal year with a total attendance of 649 men. The annual arson investigators school was attended by 152 men from several states; the instructors training school had an attendance of 127 and industrial plant fire fighting schools a total attendance of 145. A large part of the fire training was carried out by local fire department instructors.

Iowa. Robert C. Byrus, Fire Protection Engineer, Engineering Extension Service, Iowa State College, reports that 487 firemen from 122 towns attended the 24th annual fire college, and that 12 regional schools held last November had an attendance of 675 firemen for seven hours instruction each. In

Continued on page 20



Several methods of controlling liquefied petroleum gas fires were demonstrated at the Iowa Fire School. Above, closing a gas tube to snuff out flame.

Practice with "All-Service" gas masks in smoke chamber at Illinois State Fire College.

Using rope hose tool to carry "unconscious" person demonstrated at Illinois Fire College.

Exhibit of fire fighting appliances and fire prevention material at Kansas State Fire School.

Chief Joseph I. Fetters, Nebraska State Fire Instructor, gives demonstration of inspection practices at Kansas Fire School.

Volunteer Firemen Training Schools in Saskatchewan

By R. E. Tiffin, Provincial Fire Commissioner

Last year the Province of Saskatchewan was once again attacked by an enemy. An enemy which destroyed property worth $1,400,000, took 24 lives and injured 21 other. That enemy was FIRE.

DURING the year 1946, the Office of the Fire Commissioner started a full scale attack on this destroyer of life and property. We believed that the best way to fight a fire was to stop it at its source by reducing the number of possible causes or, in other words, by fire prevention. Armed with plenty of enthusiasm and determination, backed by the Saskatchewan Fire Prevention Act, we started out to thoroughly inspect the mercantile area of every town, village and hamlet in the province. If a fire hazard was found the owner was asked to remove same and was given a specific amount of time to do so. The entire province was inspected by the end of 1947. During this period we made 6,799 inspections and wrote 2,223 orders to remove hazardous conditions. We were not content with merely removing an existing fire hazard, but also put on an extensive educational campaign.

Despite our concentrated efforts in the fire prevention field, we were continually called out to investigate the cause, origin and circumstances of fires which would start as a small blaze in one of a row of buildings on a business block of a town, and before the blaze was brought under control, as many as five or six buildings or the whole side of the street had been destroyed. The reason for this was obvious. A larger percentage of our Saskatchewan towns and villages were built up with wooden frame buildings. This is particularly true of the northern section. No provision was made for a vacant lot between buildings or a fire wall to stop fire from spreading. They just grew up as it were. The fire fighting equipment, if there was any, was inadequate or in an unserviceable condition. Many of the larger towns had good equipment but they did not have trained personnel to handle this equipment and, as a result, the fire burned unchecked.

I think you will agree with me in that fire fighting equipment is only as good as the men you have to operate it. Volunteer firemen in these small communities had never had the opportunity to learn the basic principles of fire fighting. Bearing this point in mind, the Saskatchewan Fire Commissioner's Office held its first two-day Volunteer Firemens' Training School at Assiniboia on August 6 and 7, 1947.

One of the volunteer fire fighters who attended this first school said, "If we had known last spring what we know now about fighting fires, we could have kept down to $200 the damage in the blaze last May, which actually cost us $30,000, and threatened to wipe out our whole town." The 30 members of town and village fire brigades who attended the sessions, shared his sentiment, because, in that brief period, they had learned a *lot* about fighting fires.

Because of the numerous requests from different parts of the province during the next few weeks for another school, we decided that Volunteer Firemens' Training Schools should be continued. Six of these schools were held in the fall of 1947, and during the summer of 1948, sixteen schools were conducted.

FROM the very beginning, it was decided that the most practical and efficient method of training volunteer firemen in the modern and up-to-date methods of fire fighting, was to actually use and demonstrate with these fire fighting appliances.

The Office of the Fire Commissioner was not in a position, at that time, to purchase a model fire truck for demonstrations. We did, however, have first aid fire fighting extinguishers, fog nozzles, a foam hip pack, 1½ in. hose, adaptors and siamese fittings. We also carried a 16 MM projection machine and sound films. Two qualified instructors attended each school and gave all lectures and took charge of all practical work.

When a school was decided upon, a regional center was chosen, which had a portable pumping unit and a plentiful water supply, either hydrants, cisterns or dugouts. We then wrote to the local governing council and asked for their permission to hold a school in their town, use their fire fighting apparatus and have their voluntary brigade attend the sessions. We also asked them to supply us with a hall to lecture and show films in, and a small building about six foot square and eight feet high which we could set on fire also, to dig a pit 3 feet by 12 feet and 18 inches deep and supply about 200 gallons of waste oil. *In addition, they were asked to provide some form of entertainment such as a banquet or a Firemen's Ball for the visiting volunteer firemen.*

Having received the go-ahead signal from the local authorities, all governing bodies and fire chiefs within a radius of 50 miles of this regional center were sent an invitation to attend the school. We emphasized that at least the fire chief and his deputy attend. *It was recommended to any town or village that did not have an appointed fire chief that one be appointed and sent to this school.*

A few days before the school was to be held, we found that it was to our advantage to have an inspector visit this town and make certain that the building, oil pit and other arrangements had been properly attended to.

Some difficulty was experienced in drawing up this training program, due to the fact that most of these volunteer firemen had their own jobs to look after, which made it difficult for them to get away. Consequently, we embodied the whole course in a two-day school. I do not hesitate to state that it is impossible to fully train a fireman in two days. We do feel, however, that the most important topics were stressed and that the men did get the basic principles of fire fighting.

During the first morning of the school following an address of welcome by the mayor of the town, and introductions, the instructor in charge of the school explained that the purpose of the school was to impart confidence in the reliability of fire fighting equipment to extinguish a fire, if handled by trained men.

A general fire prevention lecture was given, followed by requirements and organization of volunteer fire brigades, classification and chemistry of fires, first aid fire equipment, tools and equipment, their proper usages, proper ventilation and how it aids fire brigades, building inspection, proper care and maintenance of apparatus and equipment, and proper method of extinguishment of chimney fires.

The main theme brought out in the lecture given on the requirements and organization of a volunteer fire brigade was that they must be backed by an enthusiastic, fire conscious council that will support the brigade both morally and financially. It was advocated that each local volunteer brigade provide a club room and other means of entertainment. The component parts of a brigade was also outlined and we went into considerable detail to explain the specific duties of each member.

In dealing with the classification and chemistry of fires and first aid fire fighting equipment, the members of the school were told that before we can expect a great deal of success in fighting fires we must know something about our enemy so that a logical and effective attack may be planned.

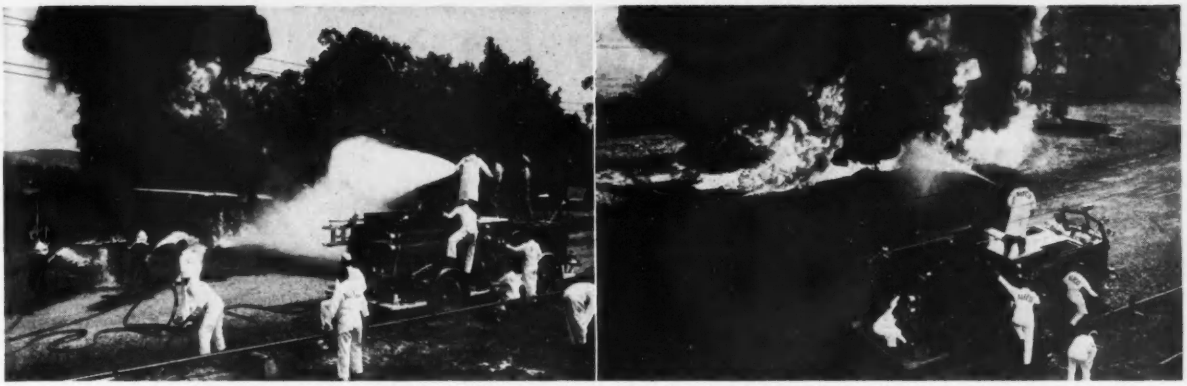
They were advised that there were two practicable ways of extinguishing a fire. One method was by cooling the burning substance below the temperature where it would give off a flammable gas or vapor, and the second method was to cut off the supply of oxygen or smother the fire. Bearing these points in mind, we explained the classification of fires and advised them why fires were broken down into three classifications.

While on the subject of classification, first aid fire extinguishers were dealt with. They were informed on the component parts of each type of extinguisher, and why that extinguisher should be used on a specific class of fire. They were also advised how to size up a building and make recommendations as to the proper type and number of extinguishers for a certain building. It was stressed that every extinguisher they recommend should bear the Underwriter's Approval Label. *I maintain that if every home and place of business in the Dominion of Canada was furnished with an approved fire extinguisher, and the occupants of these buildings were trained in the proper use of the extinguisher, the Dominion fire loss would be a long way from the $57,000,000 mark.*

The lecture given on tools, equipment,

(*Continued on page 18*)

Digested from an address before the Dominion Association of Fire Chiefs in Lethbridge, Alberta.



Using turret to blast path for 1½-in. foam lines. Left: fog tip. Right: ⅝-in. solid stream tip.

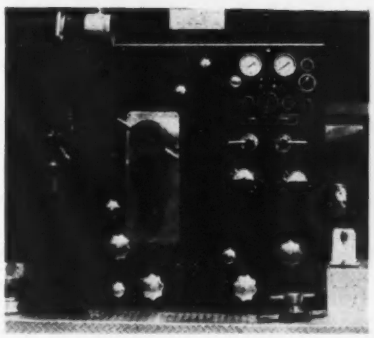
New Air Crash Truck for Hartford, Connecticut

THE Hartford, Connecticut, Fire Department under Chief Henry J. Thomas has received a new air crash truck built by American-LaFrance Foamite Corp., of Elmira, New York. Last August before a group of fire officials the truck demonstrated its ability to cope with a series of simulated air crash fires staged at the American La-France proving grounds at Elmira.

The experience of the Army Air Force was drawn upon for the basic design of the truck. It includes all-wheel drive to permit off runway operations, low flotation pressure to facilitate maneuverability on soft ground, and sufficient equipment to permit prompt rescue of trapped personnel in a crash fire. Because Air Force tests have indicated that 90 seconds is the maximum time allowable for rescues if personnel in a plane is to survive an impact fire, the truck is designed for speed in response and operation. It accelerates from a standing start to 50 m.p.h. in 32 seconds and has a top speed of 65 m.p.h. although weighing 9 tons when fully loaded including a 5-man crew.

The 750 gpm pump is operated by directly connected 170 H.P. V12 motor independent of the 204 H.P. V12 truck motor. This makes it possible to get the turret nozzle and hand foam lines in operation while the vehicle is moving; assuring the mobility so necessary for combatting crash fires. At a crash fire the single stage centrifugal pump is operated at 300 pounds per square inch. The turret nozzle discharges 190 gpm through a ⅝-in. tip. Each foam line discharges 600 gpm using 56 gallons of water and 4 gallons of liquid foam supplied by a 500-gallon water tank and 50-gallon foam tank.

Rear view of crash truck showing 4 cylinders containing 300 pounds of carbon dioxide, booster reel, hose body, 500 gallon water tank.



Operator's control panel for 750 gpm pump of new crash truck.

An A-26 bomber was used for the tests. The apparatus was stationed several hundred feet distant. Two hundred gallons of gasoline were dumped on the ground covering an area of approximately 30 ft. in diameter. Valves are opened from gasoline tanks and wing tanks so that gasoline was flowing from the tanks throughout the tests. The gasoline burned for 15 seconds before the arrival of the fire apparatus. In the first test a sufficient blanket of foam was laid down in 60 seconds to permit rescue operations. The fire was completely extinguished in 144 seconds using 400 gallons of water and 19.2 gallons of foam liquid.

A subsequent test using a fog tip on the turret nozzle required somewhat greater extinguishing time due to difficulty with flashbacks and tendency of fog to mix with the foam blanket.

Although the truck proved its ability to effect rescue of aircraft personnel, in fire department operation this truck will be housed with a pumper company and during crash fire operations will be backed up by other apparatus to assure a continuous water supply and also to permit attack on a fire from several sides.

Foam lines advancing under blast from turret of Hartford crash truck.

Iowa's County Fire Schools

By Robert C. Byrus

Engineering Extension Service, Iowa State College, (Member, NFPA Committee on Firemen's Training)

FOR many years the basic procedure in conducting fireman training programs has been to establish a Fire School at a central point, to which firemen were required to journey for instruction. The generally accepted practice has been to hold these fire schools at stated intervals. In most cases annually.

Iowa has conducted such annual fire schools without interruption since 1925. The 25th annual fire school will be held at Iowa State College in Ames, May 17 through May 20, 1949. The date of this annual event is traditionally set as the third week of May.

A look at past programs forcibly brings home the fact that if any student acquired the knowledge presented at the annual schools by the various instructors, he would undoubtedly be a master of firemanship. There are a number of men in Iowa who have missed no more than one or two schools since they were first started. Needless to say, the interest of these men in better firemanship has resulted in their playing leading roles in Iowa fire departments.

Yet serious shortcomings of such an annual fire school are readily apparent when this is the sole training endeavor of the year. An intensive course of instruction of from two to four days does not permit much retention on the part of even the most eager and attentive learners. There is too much ground covered at too fast a pace. Each fire school also finds many beginners attending for the first time. When these are attending the same classes with men of experience, the instructor has two choices, neither one of which is too desirable. He can either make his presentation simple enough for the newcomers to understand and be below the level of the oldtimers, or he can direct his material at the more experienced and thus be over the heads of the new men.

Firemanship activities limited to one school a year provides maximum opportunity to forget the skills demonstrated or the knowledge outlined. In addition, the attendance is usually so large that the teaching process is largely limited to lecture presentations, with some demonstrations. The audience is made up of comparative strangers who may be somewhat reluctant to show the same degree of interest by asking for clarification of obscure points, as they would at home. The net result is that they are told and shown many of the facets of firemanship, without assurance of knowledge acquired.

In an effort to improve this situation the Engineering Extension Service of Iowa State College secured three surplus government fire trucks for firemen training purposes. These are centrifugal pumps of different manufacture, with priming devices working on different principles. This permits pump operators to utilize equipment similar to that in their own department. These trucks have been fitted with a complete complement of appliances and equipment of the newest design of a number of different makers, for comparison purposes.

Two instructors, W. E. "Bill" Myers of Dubuque, Iowa, and Mark Brosier of Anderson, Indiana, were added to the full time staff to carry on the expanded training program by conducting fire schools throughout the State of Iowa on a county basis.

The objective of a Statewide fireman training program is to spend as much time with each department as circumstances permit and at the same time cover the field to reach as many departments as possible. To meet these requirements County Fire Schools are held in County "A" on Monday, County "B" on Tuesday, "C" on Wesnesday, "D" on Thursday, and in County "E" on Friday. This constitutes a circuit of 5 County Fire Schools per week for each instructor. Since the majority of those in attendance are volunteer firemen sessions are held from 7:00 until 10:00 P.M. A portable generator and floodlights provide ample illumination for outdoor hose and ladder evolutions. Each circuit is repeated for four successive weeks to make the course of instruction 12 hours.

The program of the County Fire Schools is purposely made flexible to permit covering the phases of firemanship the instructors feel to be in greatest need in each case. No attempt is made to present a stereotyped coverage of a predetermined subject. Rather the instructor handles each session in the manner he feels assures maximum return to the firemen present in the time available. However, for administrative guidance an outline of the 12-hour course has been prepared. In the first session the responsibility of belonging to a volunteer fire department is developed. The need for an active organization stressed. Extinguishment practices outlined. An inventory made of firemanship tools and appliances available, and tricks of the trade in their use demonstrated. To close, the importance of maintenance schedules is pointed out.

The second session discusses hose loads and hose lays in relation to factors affecting fire fighting tactics in different communities. Hose line advancements are demonstrated; ladder practices outlined. (Most Iowa departments have only the

Fire school at Andover, Iowa, population 72 people. This community bought a fire truck through the subscription of the farmers and the volunteers have already done several good jobs of fire control. Their intense interest is shown by their close attention. At left is a demonstration of a "one man doughnut roll" and at right hose loads are being demonstrated.

ladders carried on pumpers.)

The third session deals with operation of pumps, with emphasis on pressure requirements and maintenance.

The fourth session deals with fire fighting tactics, ventilation, fire prevention through inspections, and ways of making the volunteer fire department of greater service in the civic life of the community.

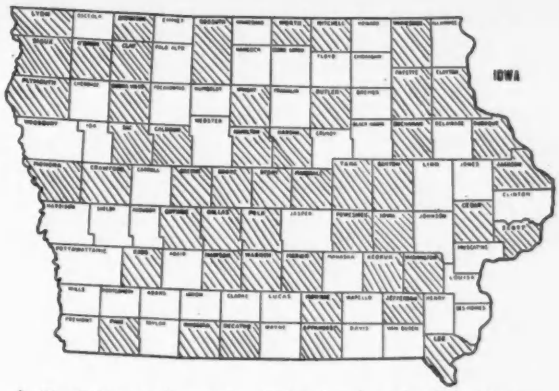
There are 99 Counties in Iowa and County Fire Schools will have been held in 50 of them by the time cold weather puts an end to outdoor activities. The map shows the location of the counties in which schools were held. Each circuit is arranged with at least one county intervening between school sites to permit firemen from cities therein to attend the school in the neighboring county if they so desire, however, they are not canvassed as are the towns in the home county.

An indication of the effectiveness of this new program can be gained from a comparison with the annual fire school. The 24th Annual Iowa Fire School was held on the campus of Iowa State College with an enrollment of 487 firemen from 122 Iowa fire departments, during the four days. The first three County Fire School circuits of the two instructors totaled 30 County Fire Schools with a total attendance of 1,633 firemen representing 184 fire departments.

In scheduling each four-week circuit a five-week period is allowed to care for unforseen complications such as interference of holidays, inclement weather, etc. The intervening week is otherwise used by the instructor to visit departments having particular need of assistance, to assist with specialized schools, and to permit him to relax from the rigors of maintaining the circuit schedule.

In addition the instructors visit departments while enroute from one County School to the next, and make their services available as requested. This ranges all the way from addressing a Civic Club to supervising the overhaul of a pump, and responding to fire calls with his fire truck.

By means of the County Fire Schools the fundamentals of firemanship is being taught to volunteer firemen on a continuing basis in their home departments. This will relieve the annual fire school at Ames of the necessity of covering the more elementary phases of the subject. As a result this program can be devoted to more technical phases of firemanship



Shaded areas show counties having fire schools in 1948.

and to new developments. This will also provide an opportunity for devoting more time to groups having specialized interest such as fire inspectors, chief officers, pump operators, department secretaries, and similar groups.

The 25th Annual Iowa Fire School is still in the planning stage and the Fireman's Advisory Training Committee under the chairmanship of Chief Wright Hedges has not as yet met to go over the program. That they are on the lookout for ever improved ways of assuring Iowa firemen of a program in keeping with their needs is evidenced by the County Fire School plan which they assisted in developing.

The comment of firemen throughout Iowa is universally to the effect that the County Circuit plan of instruction is of definite benefit to the volunteer fireman who can, and will, take time to go to a fire school close to home held evenings, but cannot get away from his business to attend a 4-day school at Ames.

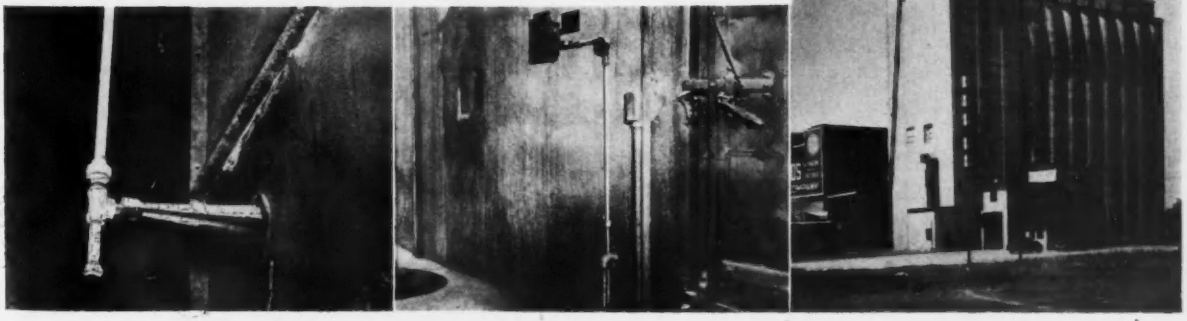
In addition to conducting the County Fire School program for volunteer firemen, the Engineering Extension Service of Iowa State College sponsors short courses at Ames designed specifically for the 22 paid fire departments of the state. Included are Instructor Training, Fire Prevention Inspections, Fire Mechanics Training, and Chief Officers Conferences.

Carbon Dioxide System Protects Large Elevator

WALTER KIDDE & COMPANY, fire protection engineers of Belleville, N. J., have installed an automatic carbon dioxide fire extinguishing system in the 400,000 bushel feed grain elevator of the National Oats Company at East St. Louis, Illinois. This is believed to be the first installation of its kind designed to protect a modern elevator and storage plant. The system consists of a manifold of large steel cylinders containing liquid carbon dioxide under pressure, rate-of-rise fire detectors and a series of discharge nozzles mounted in walls of the grain drying and cooling rooms.

If a fire starts in the hot-air drying chamber, the heat sets off fire detectors, rings an alarm, and automatically opens valves on the carbon dioxide storage cylinders. When released, the carbon dioxide operates pressure trips that stop all machinery, blowers and furnace, and is discharged as inert gas into the drying chamber to smother the fire. The carbon dioxide does no damage to grain in process.

(Left) Carbon dioxide nozzles mounted in the walls of drying oven; (center) remote control station for manual operation outside door of cooling room; (right) view of National Oats Company elevator.



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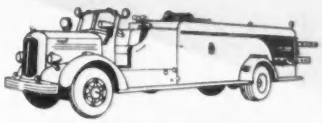
TYPES 85, 19 and 95. Semi-cab, 750 and 1,000-gallon triple combination pressure-volume centrifugal pumpers. Squad cars, city service and quadruple combination units produced in these models. Standard open-seat, coupe-cab, canopy and sedan cabs also available.

Sedan or Canopy Cab Pumper – Type 19. Available in all models except 45

Coupe-cab Squad Car — Type 45. Available in all models.

TYPE 45. Open-seat, triple combination pressure-volume centrifugal pumper. Also produced in squad cars and city service units. Standard semi-cab and deluxe coupe-cab also available.



Open-seat City Service Truck, Booster-Equipped — Type 85.

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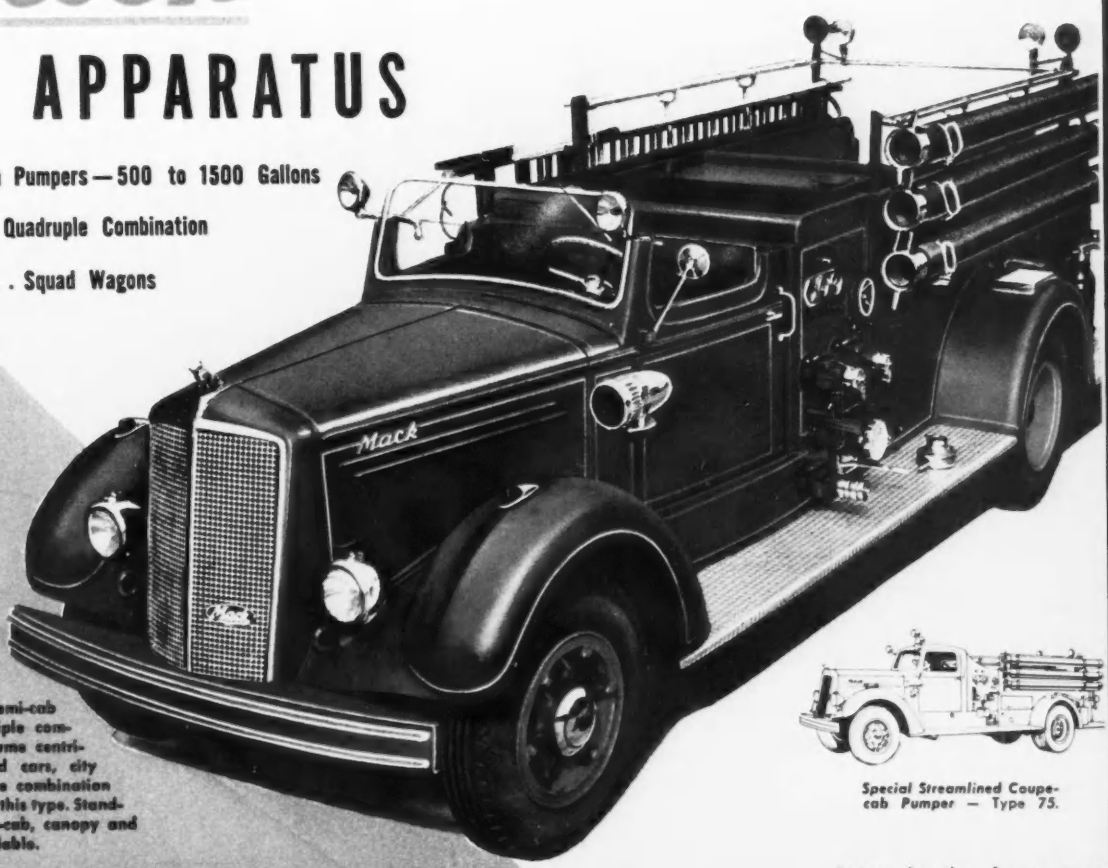

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Special Streamlined Coupe-cab Pumper — Type 75.

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Some of the Recent Fires

Ashby, Mass., Sept. 18, *Wide World* →
A young mother and her year old daughter died in this fire following an explosion, apparently of fuel oil, while the father was at work and other children were visiting an aunt.

←**Inglewood, Calif., Sept. 15,** *Wide World*
Three residents of an automobile house trailer camp were fatally burned and a dozen others were injured when vapors from an oil storage tank in a nearby refinery ignited, apparently from lanterns in an excavation. Thirteen tanks in an earthen dike enclosure were involved in the fire.

Winnipeg, Man., Sept. 5, *Portigal & Wardle* →
Fire of unknown origin in a frame metal-clad coal shed spread along this heavy timber trestle until checked by firemen from 15 companies using 22 hose streams. Loss: $107,000.

←**Montreal, Que., Aug. 23,** *Lew McAllister*
This $750,000 fire swept the Bonaventure Freight Yards when an explosion occurred as workmen attempted to clear a clogged gasoline line of a truck with a jet from a container of bottled gas. Within 15 minutes fire involved two 1,000 ft. freight sheds and numerous cars. The fire department used 40 hose streams to protect exposures as severe explosions accompanied the blaze.

←**Ojai, Calif., Sept. 12,** *Acme*
A 12,000 acre forest fire driven by a brisk wind swept to within two blocks of the town's main street, reportedly destroying some threescore homes. Women and children were evacuated from the fire area and numerous orchard sprayers pressed into fire fighting service. One man died of a heart attack.

San Diego, Calif., Sept. 9, *Wide World* →
The manager of a hotel occupying the 2nd and 3rd floors smelled smoke and phoned an alarm. Firemen found building heavily charged with smoke from fire starting in basement. Eighteen persons were rescued. The basement, 1st floor and mezzanine were occupied by a war surplus store. An explosion, probably a backdraft, necessitated withdrawal of fire fighters from the building. Twenty-two persons were injured including 10 firemen who were hospitalized. Eleven engine and 2 ladder companies fought the fire with 32 hose streams. Direct fire loss was estimated at $110,000.

←**Oskaloosa, Iowa, Sept. 12,** *Wide World*
Fire destroyed the Ideal Lumber Company property with an estimated $250,000 loss. Fire Departments from three communities protected nearby residences.

Hammond, Inc., Sept. 3, *Wide World* →
Fire in this gasoline tank truck followed collision with the automobile at right in which four young persons were killed.

←**Windsor, Ont., Sept. 16,** *Wide World*
A 200 ft. long freight warehouse on the Detroit River was destroyed with $200,000 stock of electrical equipment and newsprint. The Detroit fireboat crossed the river to assist in the firefighting.

Jersey City, N. J., Sept. 10, *Acme* →
Heavy streams are shown bringing under control a fire atop a coal elevator 70 feet high located in the Erie Railroad yards.

A Tribute to Volunteer Firemen

Remarks of Representative J. Caleb Boggs, of Delaware, Sponsor of the Volunteer Firemen's Commemorative Stamp, at First Day Sale at Dover, Delaware

Representative Boggs

I AM extremely grateful for this opportunity to give further recognition and to pay tribute to the many thousands of volunteer firemen in America. Having been born and reared in a nearby rural area, I have long had a close association with volunteer fire companies and their members. As many of you know, I have had occasion personally to be extremely grateful for the swiftness and skillfulness of volunteer firemen in extinguishing a fire before any appreciable damage or personal injury occurred.

I have said before, and I repeat here today, that all too little recognition has been given to the nation's volunteer firemen and the women who comprise their auxiliaries. Volunteer firemen are civic leaders in their respective communities. From day to day they faithfully carry on their productive enterprises and their individual businesses or professions. Yet, throughout the years of America's growth and development, they have continued to remain banded together for a common cause — the protection of lives and property. Their companies are nonprofit and all too frequently the important tasks they undertake are performed without an ample measure of gratitude and thanks. At great personal discomfort and inconvenience and danger, they faithfully perform the hazardous tasks which they voluntarily assumed for themselves.

As all of us know — and everyone who has ever lived in a rural American community knows — the value of volunteer fire companies and their auxiliaries extends far beyond their invaluable service in fighting actual fires. They have done, and they continue to do, an outstanding job in promoting fire prevention. But, even beyond that, the fire house in the villages and towns of America is an integral part of community life and civic and social activities. They represent the cooperative community spirit of mutual helpfulness which was so instrumental in the development of this nation and which continues today to give America strength and unity of purpose.

It is a great source of satisfaction and gratitude to participate here today in the Capital City of the First State in a ceremony which expresses a measure of the nation's appreciation to its hundreds of thousands of volunteer firemen for their constant devotion to duty and performance of unselfish service.

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In our vast selection of crude rubber materials you will find a type of fabric suitable for your climate and needs. The softness and flexibility in the high-grade materials used are your assurance of long time service and comfort. Many Fire Chiefs are now including Midwestern clothing in their regular yearly budget and by placing your order early you can be assured of this adequate protection when needed.

For complete information have your Midwestern dealer show you our new garments now manufactured from crude rubber compounds. A letter to the factory will also bring you material samples for your inspection.

We now have available: White, Ivory and Brown crude rubber coats for Chiefs, Assistants and other officers; also all sizes short and ¾ length felt lined Firemen's boots for immediate shipment.

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Firemen Training in Saskatchewan

(*Continued from page 10*)

and their proper usages covered everything from the much criticized fireman's axe to the lowly hose gasket. The speaker explained to the class that an axe in the hands of a trained fireman will save the owner of the property money every time the axe is swung. They were told when, where and how to use an axe at a fire. Detailed explanations were given for the use of fog nozzles and applicators, smooth bore nozzles, the use of the siamese coupling, the purpose of the double male and female coupling, the foam hip pack and the part it plays on the fire brigade, how a pike pole can aid in the extinguishment of a fire, the smoke mask, its use on the fire department and the most serviceable type for volunteer fire brigades. We pointed out to these men that in order for a fireman to do an efficient job of extinguishing a fire he must have proper tools to work with. Lack of proper modern equipment has been a big factor in the huge fire losses such as we have experienced during the past year.

PROPER ventilation and how it aids fire brigades drew a lot of comments from the members of the class. It is surprising how little many volunteer firemen know about this important topic. At the very beginning it was explained that the sole and paramount purpose of ventilation is to relieve a burning building of smoke and hot gases, thus enabling the fire fighters to locate the seat of the fire and extinguish it at its source. We explained that the old fashioned method of breaking down the door and floating the building down the street, in the hope that the water would eventually reach the base of the flame was far outdated. One point which was stressed very forceably was that a burning building should never be opened up until such a time as all ammunition was ready to combat the fire once it's location was discovered. They were told that a neat hole cut in the roof on the lee side of the building would relieve the building of smoke and hot gases and this same hole could be easily repaired after the fire was extinguished. We also explained the value of opening a window rather than breaking it. If there was a storm window, this window could be replaced and the frost damage eliminated.

The condition of a building after the fire has been extinguished determines the efficiency of the firemen who worked at the fire. A slovenly job, with much unnecessary damage, is an undesirable reflection upon the entire fire department.

BUILDING INSPECTION for fire prevention is a field which should receive more support not only from the volunteer fire brigades, but, also from a great many fully paid fire departments. Some municipal officials and fire chiefs are already sold on the dire need for increased fire prevention inspections and other fire prevention activities because they realize that fire prevention is of equal, if not more, importance than fire fighting. The idea of the two being of equal importance is gaining headway across Canada and the United States.

The main purpose of a health department either Municipal or Provincial is to prevent disease, and likewise a police officer by his mere presence on the street is a deterrent to crime. These two organizations are far ahead of most of our fire departments in their activities of prevention of disease and crime. Many firemen sit in the fire station waiting for a fire alarm to come in, where in many cases the fire could have been prevented.

When we have trained a volunteer fireman how to fight a fire, our work is only half completed, we must also train him how to be a good inspector and thus prevent fire. Building inspection not only prevents fire but it also acquaints the firemen with the building in which they may someday be called to fight a fire. If the fireman is not familiar with the occupancy of a building, he is more or less compelled to fight the fire blindly, and may be unable to render the best service in extinguishing the fire with minimum loss.

Some of the most common causes for loss of life and property through fire and where they are found in a building was thoroughly covered by the instructor.

Fire fighting apparatus and its proper maintenance is of vital importance to firemen. The type and quality of the fire apparatus is a good barometer for the progressiveness of a fire department, and its care and maintenance is an excellent basis on which to judge the efficiency of the fire fighting personnel. *To withstand the rough usage and heavy service necessary at times, apparatus should embody not only the best materials, but also the very highest standard of workmanship. Because it is emergency equipment, it should always be in a proper working order.*

I am ashamed to say that the condition of some of the chemical engines and, yes, some of the expensive motorized apparatus is disgraceful. The Fire Commissioner's Office fully realizes that more time must be spent with the small town fire brigades, educating them to look after the equipment in their town. We told them how to service their equipment, how to test and work with it. *Volunteer fire brigades should hold practises at lease twice monthly and use their equipment at these practises. In so doing, they become familiar with the equipment and a constant check is made as to its serviceability.*

Most fire departments are troubled with numerous chimney fires. Usually these fires are of little consequence, but many property owners as well as fire departments have got into serious trouble by treating a chimney fire lightly.

A warning was given that they were under no circumstances to leave the building until such time, as the attic or other confined out-of-the-way spaces through which the chimney might pass, have been thoroughly inspected.

The lectures which I have just reviewed were given the first day of the school. Each member who was registered received a copy in booklet form. At the bottom of the program a notation was made that firemen bring with them a pair of overalls and rubber boots. On the second day they were given an opportunity to use these articles of clothing. During the mornings each man had the opportunity of "catching a hydrant." If they came from a town which

did not have hydrants, we showed them how to place the suction hose in a cistern, and how much easier it was to handle this hose with a rope.

We explained the proper care of hose and how to load on the fire apparatus.

Another subject which drew a great deal of interest was rope work. We showed them how a rope would make their task of fighting fires easier and safer. Several of the firemen remarked that the knots they had learned would not only aid them in fire fighting but could be used during the course of their everyday life.

Each member of the school got an opportunity to help raise a ladder, to climb a ladder, take the leg hold, carry and place a roof ladder. They carried hose up a ladder and were amazed at the ease of placing a 55-foot ladder with proper teamwork.

THE most exciting phase of the school came when the building which had been provided for that purpose was set on fire. The men were teamed off and when the building was fired they had to go through all evolutions — start the apparatus, lay a line to the water supply, hook up the pump, siamese the line and extinguish the blaze. The building was fired numerous times by use of oil in order to give each member an opportunity to work under conditions as near as possible to an actual fire.

After working with a fog nozzle on the fire there was little doubt in anyone's mind as to its value on their own fire department. We showed them how they could walk into the blazing building with this nozzle, taking very little punishment from heat. *They were amazed at the small amount of water it took to extinguish the flames in comparison with the straight stream, thus not only cutting down on water damage to a building but also being a boon to a small center where water was at a premium.*

After having worked on the building they were shown the ease with which an oil fire could be extinguished with the fog nozzle. The foam hip pack was then brought into use and they saw how a layer of foam would cut off the supply of oxygen from the burning oil and thus extinguish the fire.

The use of the movie projector and sound film played a very important part in this school. The films "Chemistry of Fire," and "Men of Fire" were shown at the school the first night.

The second evening of the school was thrown open to the general public. This meeting gave the citizens an opportunity to come and see what their volunteer firemen were being taught. During the course of the evening they were shown films on fire prevention. These included "A Word to the Wise," "They Didn't Have to Die," "Fight that Fire" and "More Dangerous than Dynamite."

Before the members left they were asked to hand in to the instructors their comments on the methods of instruction, the school procedure, and suggestions as to how improvements could be made. All agreed that the time spent at the school was very beneficial and expressed the hope that the schools would continue.

This generally summarizes the program followed at the schools conducted thus far.

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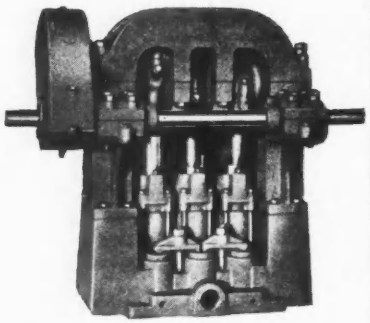

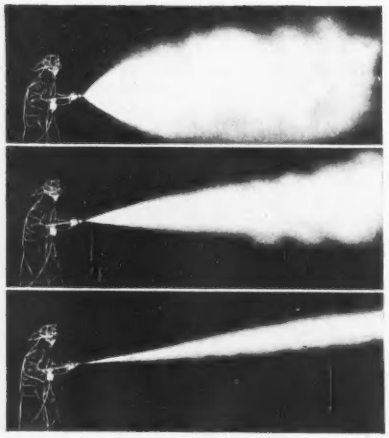

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1948 Firemen's Training Program

Continued from page 9

addition, the county fire school program reached 1633 firemen in 184 departments of 30 counties during the fiscal year. (See page 12.) Other activities included 30-hour courses in hose evolutions and pump operation with attendance of 208 firemen in 7 schools, 30-hour instructor training course for 20 drillmasters at Iowa State College, 32-hour short course for 18 fire prevention inspectors, two 16-hour regional officers schools with an attendance of 181 men, a fire chiefs conference held in conjunction with the Iowa Fire Chiefs Association attended by 47 chiefs, and 541 firemen attended 47 classes conducted at individual departments with an average of four-hour instruction.

Kansas. Mr. O. H. Beaty, State Supervisor Trade and Industrial Education, reports the annual fire school held in Wichita consisted of four nine-hour courses covering inspection practices for volunteer firemen, pumper operations, and fire department administration with a total enrollment of 253 men. Itinerant training courses reached a total of 32 men. The training program is conducted on a cooperative basis with the University of Kansas, Bureau of Extension, State Firemen's Association and other interested agencies. It is hoped to employ an instructor to conduct an itinerant state fire school program.

Kentucky. Captain V. A. Beam, Coordinator, Firemen's Training, reports that the fire school held at Lexington June 8-10, had a registered attendance of 277 with 205 certificates awarded by the University of Kentucky. In addition, the Western Kentucky Firemen's Training Association conducted a two-day school at Morganfield with 195 men registered. The state fire instructor conducted 30 five-day schools with 580 men participating with 20 hours of work. As in a number of other states, the fire training staff carried out extensive fire prevention educational work and industrial fire brigade training.

Louisiana. Chief Robert A. Bogan, Baton Rouge, reports that five sectional firemen's training schools were held in the state for the fiscal year ending June 30 with 121 men from ten departments represented. In addition, 66 firemen from 36 departments attended the annual state fire school at Baton Rouge in April.

Maine. Mr. Maurice C. Varney, Director of Trade and Industrial Education and Chief Allen F. Payson of Camden have reported on a series of fire schools held in Aroostook County in which 85 firemen from 35 departments participated. Plans are under way to extend the fire school program to other sections of the state.

Maryland. Chief James Just, Director, Fire Service Extension, University of Maryland, reports that the past fiscal year was the most active since the inauguration of the continuous training program. Fifty-two classes, including 41 basic with an enrollment of 931, nine advanced with enrollment of 154, and two additional courses with an enrollment of 32, brought the total enrollment to 1117. The September fire college had a registration of 222 with 177 participating in four specialized 16-hour training classes. New equipment in the college fire training building includes radio fire alarm system, automatic sprinkler piping including window sprinklers and considerable minor equipment.

Massachusetts. Supervisor John I. Lusk reports for the State Department of Education that fire department instructors from the Vocational Division conducted 21 fire schools with a total of 591 firemen enrolled. In addition ten monthly meetings were held for zone school instructors. A 30-hour instructor training course granted certificates to 31 men from 16 fire departments. A 30-hour course for Fire Prevention Bureau personnel was attended by 14 representatives of five departments and a fire prevention school enrolled 121 men from 57 industrial concerns in the Boston area.

Michigan. Supervisor M. D. Whale, Public Service Training, reports that 2666 firemen participated in the fire training program. This included 872 men from 15 municipal fire departments, 279 men at town fire schools, 351 men from 64 departments attended the Michigan Fire College, 70 municipal firemen from 8 departments received veteran on-the-job training, and Chief Wallace Gannon, itinerant instructor, trained 579 volunteer firemen from 44

departments in a 20-hour course and 515 firemen from 15 departments in a 10-hour course in rural fire fighting.

Minnesota. Leonard C. Lund, Fire Marshal Division, reports over 500 firemen attended the annual Northwest Fire School at St. Paul, and in addition ten one-day regional schools were attended by more than 1700 firemen.

Missouri. Director Amos J. Snider, Extension Service, University of Missouri, reports that 208 firemen were enrolled in basic training classes during the past fiscal year and 81 officers attended three officers training classes. In addition, a state fire conference was held at Columbia and regional conferences were held at Springfield and Doniphan. The program for the present year includes the annual fire school at Columbia, an annual school on fire department administration for chief officers, and four one-day regional conferences, in addition to assistance rendered to local fire departments throughout the state.

Montana. The second annual training school at Columbia Gardens with 165 persons in attendance was the largest fire school ever held in Montana. The program was devoted to practical demonstrations of fire fighting. The school was under the direction of Frank Hollenbeck.

Nebraska. Chief J. I. Fetters, Supervisor of Fire Training, reports that during April ten one-day regional fire training schools were conducted and a three-day state school was held at Grand Island. Some 210 departments were represented by an attendance of 1143 firemen in the regional schools and 73 departments represented by 250 firemen at the Grand Island school with instruction in pumps, rescue and arson detection. A series of regional chief officer refresher courses was conducted at three centers with 115 chief officers from 31 departments receiving ten hours of instruction. Itinerant instructor William Berens conducted a 20-hour course reaching 54 departments with 801 men enrolled for training and 627 men received certificates.

Nevada. Nevada has 34 organized fire departments of which only one is fully paid. Twenty-eight fire departments are participating in the state training program, conducted by Mr. Donald C. Cameron of the Department of Vocational Education and Captain James Owens, Fire Department Instructor, who visits each department in turn for a period of one to three weeks, making fire prevention inspections during the daytime and training volunteer firemen evenings.

New Hampshire. Howard Swain of the State Department of Vocational Education reports that the Third Annual Fire School to be held at the University of New Hampshire at Durham, was postponed due to hazardous dry weather conditions which would have prevented attendance of many volunteer firemen. The 1947 Fire School held at Durham had an attendance of 220 firemen.

Plywood cutout used at Iowa Fire School for messages, notices, etc. Examples of fire safety messages are "A burning ambition and a blazing record are not the same," and "The city of fire safety is in the state of fire prevention."

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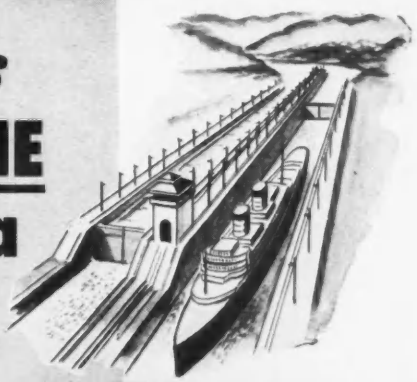

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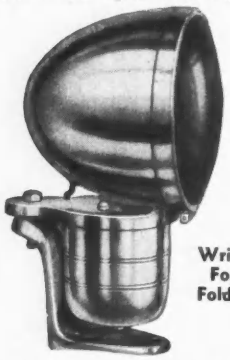

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1948 Firemen's Training

Continued from page 21

New Jersey. There is no statewide fire training program. Last year a six-week fire college was conducted at Newark with a large attendance. Several regional and county fire service organizations conduct training programs in addition to the work carried on in local fire departments.

New Mexico. Chief Dannie Simonds of Deming reports that the 17th annual fire college, held at Deming, June 7 to 9, was one of the best attended to date with 125 firemen from 25 departments. The program featured practical demonstrations of the use of high pressure fog, dry powder chemicals and carbon dioxide extinguishing equipment.

New York. Several counties on Long Island have full-time fire department instructors serving their volunteer fire departments and operating under Federal funds for public service training available through the George-Dean act. Westchester County just north of New York City staged a week-long firemen's training institute including demonstrations of latest fire fighting equipment and methods. A new fire department training program is to be made available to the various counties of the state through the new Bureau of Fire Mobilization and Control under Chief Thomas H. Coates. (See FIREMEN for June 1948, page 10.)

North Carolina. State Fire Marshal Sherwood Brockwell reports that 284 firemen from 66 departments attended the North Carolina Fire College. Of these, 160 participated in the drill school. Thirty-one diplomas were awarded to men completing the four-year course.

Ohio. Public Service Training Consultant, George L. Brandon, reports that 1013 firemen participated in the 40-hour training course the past fiscal year. In addition, Dr. Harvey Walker of Ohio State University reports that 81 men attended the Fourth Short Course at the University. An expanded fire training program is planned to include a 12- to 15-hour instructor training course to be conducted at Toledo University, Kent State University and the University of Cincinnati with a goal of "A trained instructor in every fire department of Ohio." In cooperation with the State Fire Marshal's office, 1400 fire training questionnaires were distributed to Ohio fire departments. Incomplete replies included 541 requests for local training, officers' training and instructor training. Fire training text material is being revised to provide a 30–32 hour basic course. New courses are also planned for industrial fire brigades and advance courses of 10 to 15 hours for fire departments.

Oklahoma. George Orgain, Field Instructor, reports that 165 men from 42 departments were enrolled in the Short Course conducted at Stillwater, July 5 to 30. In addition, 797 firemen were enrolled in classes given by two field men in 38 communities and of these 673 were granted certificates. The college-level course in firemanship, given at Oklahoma A & M College, in cooperation with the Stillwater Fire Department, is starting its 11th year of operation, and is under the direction of Chief R. J. Douglas.

Oregon. Elmer H. Halstead, State Supervisor, Public Service Training, reports that during the past fiscal year 35 firemen received teaching certificates upon completion of a 56-hour teacher-training course. During the past summer 46 additional instructors were certified and two additional schools are contemplated.

Director of Public Safety of Kansas City, Francis Wornall, addresses the Missouri Central Fire School.

State Fire Instructor W. Bush Walden addresses the Central Fire School at Columbia on "Is It Worth the Time?"

Pennsylvania. This state has one of the most extensive firemen's training programs under Principal Alfred S. Holt and Chief Edgar A. Spotz of the Public Service Institute. Figures as to the total number of firemen receiving training have not been received at time of publication. However, a story about the Pennsylvania Fire School appeared in FIREMEN, July 1948, page 10.

Rhode Island. The numerous volunteer fire departments of this state have not as yet agreed on any form of state-wide training. However, the several regional and county firemen's associations have regular programs of an educational nature and field-days devoted to demonstrations of fire fighting techniques are an accepted part of the annual programs.

Tennessee. Fire Service Training Instructor Homer S. Elkins, Division of Vocational Education reports that 70 firemen completed a week's training at the Fifth Annual State Fire Service School. In addition, during the fiscal year, held June 30, 366 firemen completed an average of 12 hours training in 21 classes.

Texas. Director H. R. Brayton, Firemen's Training School, reports that 469 firemen from 283 departments were enrolled at the Nineteenth State Fire School. In addition, during the past fiscal year 1923 firemen from 107 towns were enrolled in 135 training classes totalling 3587 hours of instruction. These included 1452 firemen receiving basic training, 84 men receiving instructor training and 107 enrolled in officers conferences, 19 in fire department administration and 261 in classes on modern hazards in fire fighting.

Utah. Asst. Chief Albert Thompson of Salt Lake City reports that the Fourth Annual Fire School attracted delegates from seven western states, including 41 fire departments and several industrial concerns. Airplane crash and gasoline spill fire fighting was demonstrated at the school.

Virginia. Harold I. Baumes, Executive Secretary of the League of Virginia Municipalities, reports that the itinerant instructor program in operation part of the year reached 175 firemen. The State Fire School held at Petersburg on September 13 issued training certificates to 57 men.

Washington. Mrs. Emma L. Ethier, Secretary for the Washington State Firemen's Association reports that the State Board for Vocational Education conducted an annual one-day fire college in connection with the Annual Conference of the Washington State Firemen's Association and the Washington State Association of Fire Chiefs held at Vancouver.

West Virginia. R. E. Hanna of the Fire Service Extension School, West Virginia University, reports that 188 persons from 43 municipal departments and 14 industrial concerns and 3 institutional fire brigades participated in the annual fire school. Eight men completed an instructor training course.

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Present-day concentrations of values make it exceedingly undesirable and dangerous to entrust property protection entirely to isolated watchmen who cannot be expected to cope singlehandedly with every emergency. Farsighted businessmen provide increased security through ADT Central Station Watchman's Reporting and Manual Fire Alarm Service, which checks the watchman's patrols, investigates failures to signal, provides necessary aid, and supplies means for summoning the police and fire departments and other emergency forces. In addition, ADT furnishes the following *automatic* services to reinforce watchmen in the performance of their duties and to protect properties where no watchmen are employed.

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MEMBERSHIP REPORT

NOW with the winter season approaching many fire companies will have to confine training to indoor activities. Articles appearing in FIREMEN and numerous other publications of the National Fire Protection Association are often of great aid as topics for discussion at indoor training sessions. The NFPA has received many letters from member departments telling how suggestions and evolutions shown in FIREMEN have been of assistance.

New members of the Volunteer Fire Company Section are:

The Callmen's Assn., Company No. 2, Union, N. J.
Cedar Grove Fire Dept., Cedar Grove, N. J.
Fairview Fire Dept., Fairview, Pa.
Frankfort Vol. Fire Dept., Frankfort, Mich.
Hughesville Vol. Fire Dept., Hughesville, Md.
Ladysmith Fire Dept., Ladysmith, B. C.
Kincaid Fire Dept., Kincaid, Sask.
Limon Vol. Fire Dept., Limon, Colo.
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($12.50 annual dues) Eligible:

(1) all bona fide volunteer fire organizations in any community.

(2) all fire departments and companies in communities of less than 25,000 population.

(3) all industrial fire brigades.

Member volunteer fire companies receive ten copies of FIREMEN magazine each month, mailed to the homes of individual firemen. Beyond the ten, additional copies of FIREMEN cost $1 per year.

Volunteer Fire Company Section members, receive, at their headquarters, one copy of all publications sent to NFPA associate members.

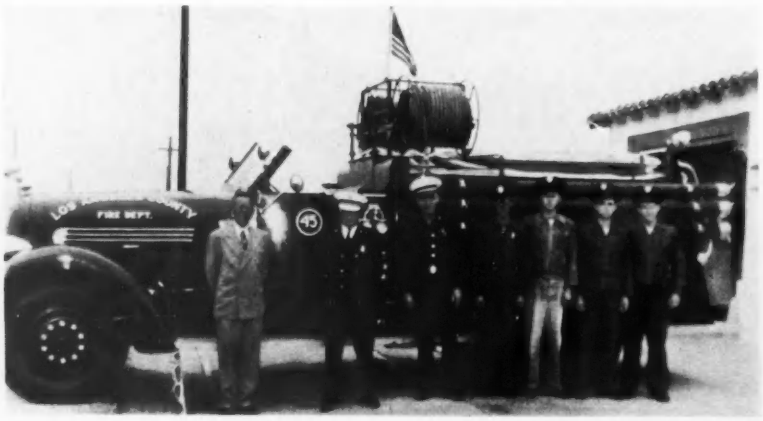
ASSOCIATE MEMBERSHIP ($12.50 annual dues) Eligible: Individual fire department officers, firemen, and others interested in fire safety. NFPA associate members in the fire service receive: one copy of FIREMEN magazine monthly, the NFPA **Quarterly**, the monthly **News Letter**, technical standards, popular bulletins and posters.

All associate members have one vote in Association affairs.

Morley Burleen

"Looks Thirsty, doesn't it?"

Latest Tank-Pumper for Los Angeles County



THE Los Angeles County Fire Department has long been a pioneer of the tank-pumper for the protection of areas where hydrant distribution is limited, because tank apparatus can supply effective streams through booster and 1½-in. hose. Progressively through the years the tank-pumper has developed to its present state of efficiency.

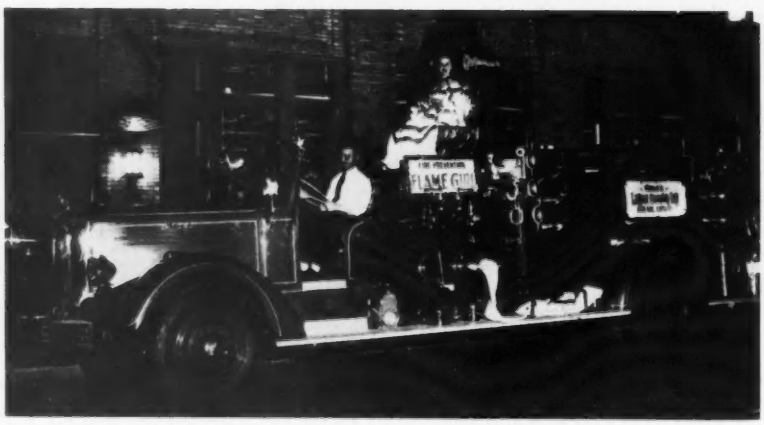
The latest of the Department's fleet of tank-pumpers is shown in the above photo taken at the time of the presentation ceremony. Left to right in the picture are Spence D. Turner, Chief Engineer, County Fire Protection Districts; T. C. Loggins, Assistant Chief; Capt. Robert Clark; Engineer Robert Jones; and Firemen Hutchinson, D. V. Moore, and B. A. Owens.

This unit, purchased for the Los Angeles County Lakewood Fire Protection District, Engine 45, is one of nine recently purchased from the Seagrave Corporation, Columbus, Ohio.

These pumpers are equipped with a 12 cylinder, 268 horsepower motor, 500-gallon water tank, 1,000 gpm two-stage centrifugal pump and an 80 gpm rotary gear road pump to permit small stream operation while the truck is in motion. Discharge connections include two 2½-in. on each side and two 1½-in. gates at the rear and two booster hose reels.

The truck carries 1,800 ft. of 2½-in. and 600 ft. of 1½-in. double jacketed hose. There are three lengths of large suction hose.

2000 GPM Mack Pumpers in Minneapolis



THE Minneapolis Fire Department under Chief George Lockhart boasts two 2,000 gpm Mack pumpers each having eight 2½-in. discharge gates. These machines make it possible to concentrate large pumping capacity close to a fire and in some instances get ahead of traffic which often delays the arrival of additional apparatus at large fires. The picture was taken during a recent parade.

The claim to have the "World's Largest Pumper" should be qualified with the observation that Los Angeles has several dual pumpers carrying two 1,500 gpm pumps and capable of a combined delivery of 3,000 gpm. One advantage claimed for large pumps is their ability to supply 1,000 gpm at 200 pounds pressure. Many older 1,000 gpm pumpers deliver but 500 gpm at 200 pounds.

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MANUFACTURERS' ANNOUNCEMENTS

Philip Morris Promotes Fire Prevention in Hotels

PHILIP MORRIS & COMPANY is the first of the leading cigarette manufacturers to cooperate in the extensive campaign of the National Fire Protection Association to decrease the alarming loss of life and property losses attributed to careless smoking and the careless use of matches each year. Philip Morris has issued fire warning cards for placement in the rooms of America's hotels. This smart

PLEASE BE CAREFUL!
THE Management earnestly calls your attention to the fact that everything within our power has been done for the protection of our guests against fire.
However, we cannot protect careless smokers against themselves.
Be — please don't drop matches, ashes, or lighted cigarettes on chairs or rugs. Use the ash trays. Do not smoke in bed.
When leaving, be sure all cigarettes, cigars, and pipes are out. This last-minute "look-around" by you may avoid the start of a fire, and possible loss of life and property. Your cooperation will be sincerely appreciated, believe us!
The Management and
Johnny Philip Morris
Remember - YOU ARE NOT FIREPROOF!

two-color card carries a picture of their famed living trademark, Johnny, who implores the hotel guest to "Please Be Careful." The message points out that the management of the hotel has done all it has in its power to do to protect its guests against fire, but the guests must take some responsibility and use the ash trays provided and not drop matches, ashes and lighted cigarettes on chairs or rugs. Smokers are specially cautioned not to smoke in bed.

Sound-Powered Telephone Handset Now Available

THE mass production of a sound-powered handset has been announced by the Wheeler Insulated Wire Company of Waterbury, Conn. This has been designed to give a safe, dependable means of emergency communication at a reasonable price. The manufacturer states that no batteries or power supply is necessary. It will give satisfactory operation up to 25 miles. The units operate over a two conductor full metallic or a single wire, ground return circuit. Design of the handset is along the lines of a conventional telephone handset and is said to be essentially weather proof. The assembly is constructed to withstand the usual rough handling encountered in the fire service.

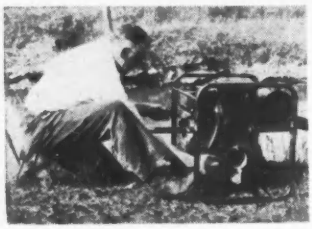
The handset cable is of two conductor stranded, neoprene outer jacket equipped with rubber insulated test clips and is available in any length with locking type connectors to facilitate the rapid setting up of lines.

New Metal Polish Announced

A NEW metal polish, said to require only application and wiping off, known as "Formula No. 40," manufactured by the John C. Charles Company of 812 West Eighth St., Los Angeles, Calif., eliminates further polishing. It is used on brass, chrome, copper, monel, nickel, and aluminum. The manufacturer estimates that it will cut the time and labor spent on polishing bright metals by at least 50 percent.

FOR SALE
Immediate Delivery
1947 American-LaFrance-Foamite
500 Gallon Pumper with
350 Gallon Booster Tank
Fully Equipped
For details write to
East End Volunteer Fire Company, Inc.
Farmington, L. I., New York

Quick-Starting Portable... HALE FZZ



The FZZ will supply from draft 60 GPM at 90 lbs. and 150 GPM at 30 lbs.

Users are pleased with the quick-starting ability of the Hale type FZZ Portable Pumping Unit — an especially valuable feature in freezing weather. The 4-cycle single cylinder 7.7 H.P. Briggs & Stratton engine ensures ease and speed in starting . . . and plenty of power to the direct-connected Hale Pump.

Users are amazed too, at the pump's efficiency under tough pumping conditions. Letter after letter from users, describes the FZZ's pumping ability to deliver through long lines of hose a volume and pressure they consider remarkable.

Write for FZZ folder. Let us know if your Company wants a demonstration.

HALE FIRE PUMP COMPANY
CONSHOHOCKEN, PA.
FIRE PUMPS IN ALL STANDARD CAPACITIES

INDEX TO ADVERTISERS

A. D. T. Co.	23
American-La France-Foamite Corp.	4
American-Marsh Pumps, Inc.	17
John Bean Mfg. Co.	2
Carpenter Mfg. Co.	22
The Circul-Air Corp.	18
W. S. Darley & Co.	27
H. E. Evans & Co.	22
Federal Enterprises, Inc.	20
The Fyr-Fyter Co.	18
The Gamewell Co.	25
The General Detroit Corp.	3
Hale Fire Pump Co.	26
The Hardie Mfg. Co.	20
Mack Mfg. Corp.	14–15
Midwestern Mfg. Co.	17
Rockwood Sprinkler Co.	28
Scott Aviation Corp.	19
D. B. Smith & Co.	21

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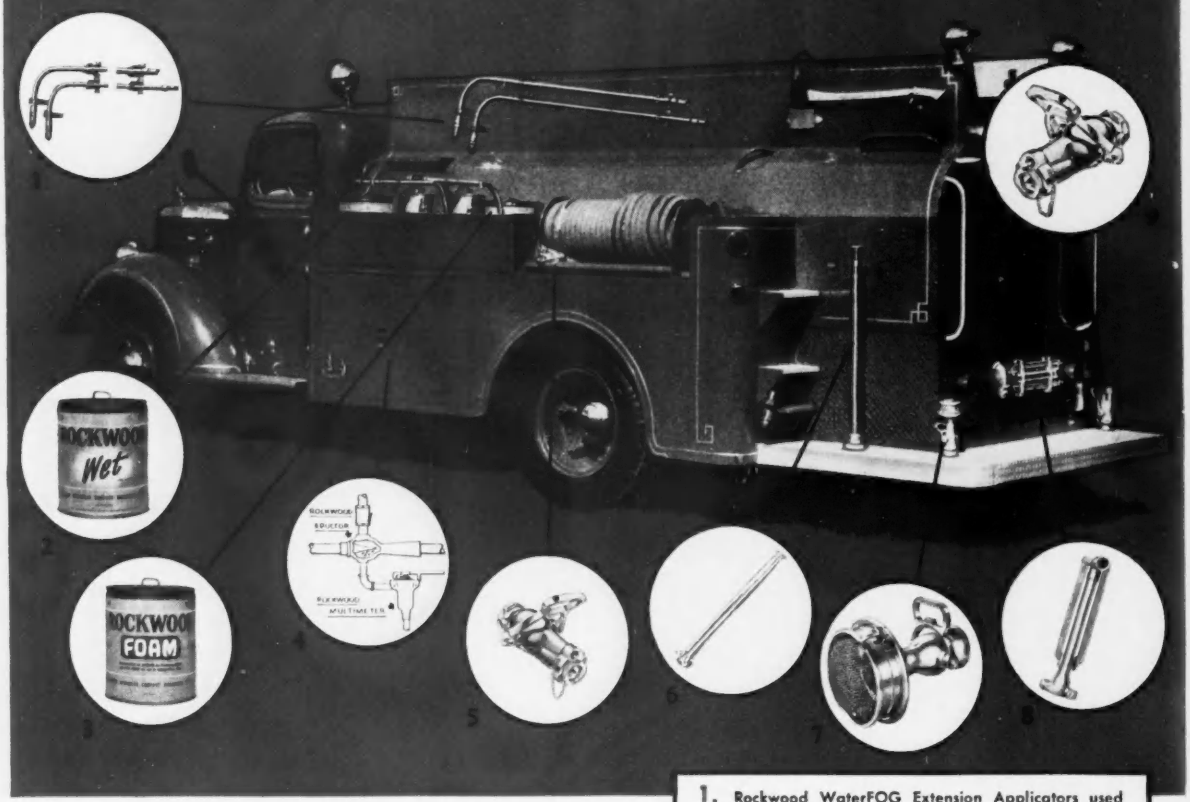

NEW "HOLDEN FIRE COMBAT UNIT" CARRIES WATER TO RURAL FIRES. MAKES WATER GO FARTHER WITH ROCKWOOD WATERFOG AND FOGFOAM EQUIPMENT COMBINED WITH ROCKWOOD "WET" AND FOAM LIQUID.

Rural areas can now obtain modern fire protection that has been available heretofore only in large cities and towns equipped with their own hydrant systems. The "Holden Combat Unit" makes this possible.

This new unit featured in a recent issue of Reader's Digest, carries 800 gallons of water to a fire. It has a pump with the capacity of 120 g.p.m. at 180 p.s.i., 1600 feet of 1½" CRL hose and 2 reels each with 200 feet of ¾" booster hose.

The designers of this advanced type of rural fire fighting truck have had the foresight to outfit their trucks with the first word in Rockwood fire fighting products which were designed to get the maximum extinguishing action out of every drop of water carried by the truck.

Rockwood products are illustrated above and described in the next column.

Complete literature and prices will be sent upon request.

1. Rockwood WaterFOG Extension Applicators used with type SG-48 Rockwood WaterFOG Nozzles.
2. Rockwood "wet"— a wetting agent designed for fire fighting — makes water penetrate faster and farther into burning materials.
3. Rockwood Foam Liquid.
4. Rockwood Across-the-pump proportioner for automatically feeding wetting agent or Foam liquid into hose lines.
5. Rockwood WaterFOG Nozzle (type SG-48) for ¾" booster hose — increases the fire extinguishing action of water.
6. Rockwood Foam shaper produces a solid Foam stream discharge when used with 1½" type FFF Rockwood FogFOAM Nozzle.
7. Type FFF Rockwood FogFOAM Nozzle generates a mixture of water and Rockwood Foam Liquid into a FogFOAM discharge which extinguishes gasoline fires.
8. New type Rockwood cellar and attic pipe makes water more efficient in fighting fires in blind spaces.
9. Lightweight Rockwood WaterFOG Nozzles (type SG-48) are used on the two 1½" hose lines to help stretch the water.

ROCKWOOD

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